

ABSTRACT

A periodical processing time band during which communication is periodically conducted between a plurality of communication terminals and a data bus control apparatus

5 and a non-periodical processing time band during which communication is non-periodically conducted between the above-described plurality of communication terminals and the above-described data bus control apparatus are independently provided, and communication terminals for conducting

10 communication with priority during each non-periodical processing time band are determined in advance. Based on a schedule, collection of communication requests (polling) to the communication terminals for conducting communication with priority during the above-described non-periodical processing

15 time band is conducted, and in case that the communication requests from the communication terminals exist, transmission is allowed if a data content to be transmitted, which is averaged by a time period during which transmission of a plurality of packets is conducted, is below or equal to an

20 allocated allowable band, and one variable length packet is transmitted from the communication terminal during the non-periodical processing time band, and the transmission is suppressed if it is above or equal to the allocated allowable band.